

## ABSTRACT OF THE DISCLOSURE

An illuminator capable of increasing the service life of discharge tubes. The illuminator includes a pair of a ultraviolet light-emitting discharge tube and a white visible light-emitting discharge tube that are alternately and periodically placed in a lighted state and an unlighted state, such that a state of illumination using only one of the ultraviolet light-emitting discharge tube and the white visible light-emitting discharge tube is realized in at least part of a time domain during the repetition period. The illuminator comprises a hot-cathode tube 11 used for at least one of the ultraviolet light-emitting discharge tube and the white visible light-emitting discharge tube, the hot-cathode tube being arranged in a state where a heating power supply 7 for heating filaments 4, and an illuminating power supply 8 for enabling motion of thermoelectrons within the hot-cathode tube and at the same time periodic repetition of the lighted state and unlighted state, are capable of executing and interrupting application of voltage, independently of each other.